

**(C) IN THE ABSTRACT****DIRECTLY COOLED HOLLOW CONDUCTOR WOULD TRANSVERSE GRADIENT COIL BOARDS****ABSTRACT OF THE DISCLOSURE:**

MRI operates by passing current through gradient coils to create a magnetic field. Creation of the magnetic field requires a relatively high current which causes a large heat build up within the MRI, especially in the patient space. The present invention provides for a hollow conductor through which a coolant can be passed directly during the application of current.